A New Species of *Conostephium* (Epacridaceae) from South-Western Western Australia

Paul G. van der Moezel

Department of Botany, University of Western Australia, Nedlands, W.A. 6009

Abstract

van der Moezel, Paul G. A new species of *Conostephium* (Epacridaceae) from south-western Western Australia. Nuytsia 6(1):47-50 (1987). A new species of *Conostephium* is described: *C. uncinatum* Moezel is restricted to the mallee region north of Esperance, Western Australia.

Introduction

Conostephium Benth. (Epacridaceae) is a small genus in the tribe Styphelieae comprising six species, all of which are endemic to Western Australia. It is distinguished from the thirteen other genera within the Styphelieae by having wholly enclosed anthers and a conical corolla tube with minute erect lobes (Bentham 1867). Within the genus the main characters used to separate individual species are: the shape of the corolla tube, leaf size and shape, flower size and peduncle shape and length (Blackall & Grieve 1981). To these must now be added the presence and distribution of hairs. Collection of material from the mallee district north of Esperance, Western Australia has revealed the occurrence of two species which, among other distinguishing characters, have hairs on the leaves and young branches as well as on floral parts. One of these species, *C. marchantiorum,* has only recently been described (Strid 1986). That the other species is undescribed has been established by examination of material from the Western Australian, Melbourne and Kew Herbaria. A new key to all the species of *Conostephium* is included here.

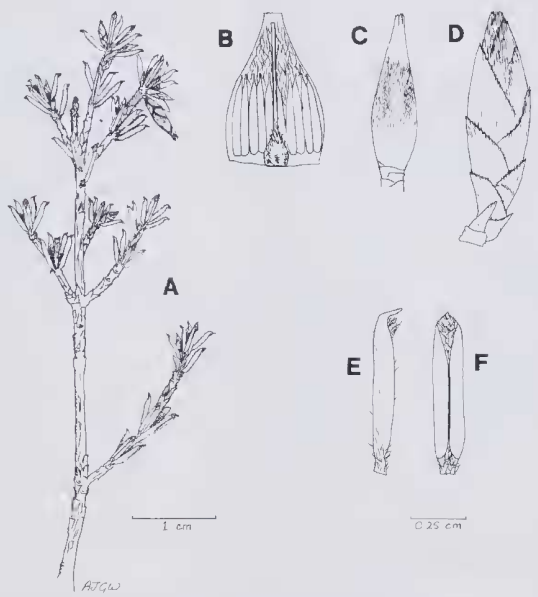

Figure 1. *Conostephium uncinatum:* A-Flowering branch. B- Flower LS, opened out showing stamens, ovary and style. C- Corolla tube, external. D-Flower with bracteoles. E-Leaf (side view). F-Leaf (abaxial view). From *P.G. van der Moezel* 213 (Type).

Key to the species of *Conostephium*

1a. Corolla tube cylindrical and glabrous inside....2
b. Corolla tube wider in the middle and hairy inside....3
2a. Ovary glabrous; leaves obovate-oblong to narrow-oblong....*C. preissii*
b. Ovary hairy on upper half; leaves ovate-lanceolate to linear-lanceolate, flat or concave, 1.2 cm long....*C. drummondii*
3a. Ovary glabrous; leaves flat or with recurved margins....4
b. Ovary hairy on upper half; leaves all revolute....5
4a. Peduncles greater than 2 mm long; leaves linear- oblong to obovate-oblong, flat or with recurved margins, 2-3 cm long; flowers 1.5-2.0 cm long....*C. pendulum*
b. Peduncles less than 2 mm long; leaves ovate to obovate or linear-cuneate, flat or with recurved margins, 1 cm long; flowers 1 cm long....*C. roei*
5a. Leaves with deflexed apex....*C. uncinatum.*
b. Leaves without deflexed apex....6
6a. Leaves narrow-linear, 1.5-1.8 cm long, glabrous; bracteoles minutely pubescent on outer surface....*C. minus*
b. Leaves narrowly oblong-linear, 6.5-7.0 mm long, hairy on both surfaces; bracteoles densely silky-hairy on outer surface....*C. marchantiorum*

Conostephium uncinatum Moezel, sp. nov. (Figure 1)

Differt a *C. minus* folliis brevioribus, revolutioribus, apicibus deflexis, paginis foliorum adaxialibus villosis.

Typus: 14 km E of Grass Patch on Steddy's Rd, Western Australia (33° 14' S, 121° 52' E), 18 October 1982, *P.G. van der Moezel* 213 (holo: PERTH; iso: CANB, K, MEL).

Erect *shrub* to 1 m high. *Branches* grey, densely puberulent at extremities, the hairs c. 0.3 mm long, patent, straight, silky. *Bark* finely longitudinally fissured toward base of branches, ± smooth in upper branches. *Leaves* erect, clustered into several groups at ends of branches, narrowly oblong-linear, 3.5-4.5 mm long, 0.5 mm wide, tightly revolute, ± abruptly narrowed at apex into indurate, brittle, brown cusps 0.6-0.7 mm long, cusps deflexed at an angle of 45°-90°, adaxial surface smooth and more or less glabrous, abaxially striate and covered with long, straight, silky hairs; *petioles* flat, broad c. 0.7 mm long, hairy. *Flowers* solitary in upper axils, subnutant, 6-7 mm long, 1.5 mm wide, sub-sessile. *Bracteoles* nearly as long as calyx, appressed silky hairy abaxially, glabrous and shiny adaxially. *Calyx* 4.5-5 mm long, 2 mm wide, chartaceous, shiny. *Corolla* 7-7.5 mm long, 1 mm wide, broadest near the middle and tapering towards the lobes, externally pubescent in upper half, lower half and lobes glabrous, internally villous throughout. *Stamens* inserted at broadest part of corolla. *Filaments* flat, short, villous. *Anthers* c. 2 mm long, lobed. *Anther lobes* c. 0.3 mm long terminating in a hooked point. *Ovary* obovoid, with long straight, soft, silky hairs at the apex c. 0.5 mm long. *Style* slender, lower ½ - ⅔ covered in long, soft, silky, patent hairs.

Other specimens examined. WESTERN AUSTRALIA: Mt Heywood, *K. R. Newbey* 7968 (PERTH); Clyde Hill, *M. Burgman* 1834 (PERTH).

Distribution. Restricted to the mallee region of central south-western Western Australia between Grass Patch and Clyde Hill (Figure 2).

Ecology. Found in deep sandy soils and also in red sand and clay in a depression near a claypan. This species is only known from three localities and could be considered rare and restricted (category 2V; Leigh et al. 1981) until further collections prove otherwise.

Etymology. The species name refers to the hooked apex of the leaves.

Conostephium uncinatum is closely allied to *C. minus* and *C. marchantiorum.* All three species have short peduncles, pubescent ovaries and a corolla tube wider in the middle and tapering towards the lobes. *C. uncinatum* differs from the other two species by having a deflexed leaf apex, shorter floral parts and shorter, more tightly revolute leaves. *C. marchantiorum* is also restricted to the mallee region of south-central Western Australia, between Peak Charles and Scaddan (Figure 2). The distribution of *C. minus* is over 700 km away in the Perth regional area and north to Gingin.

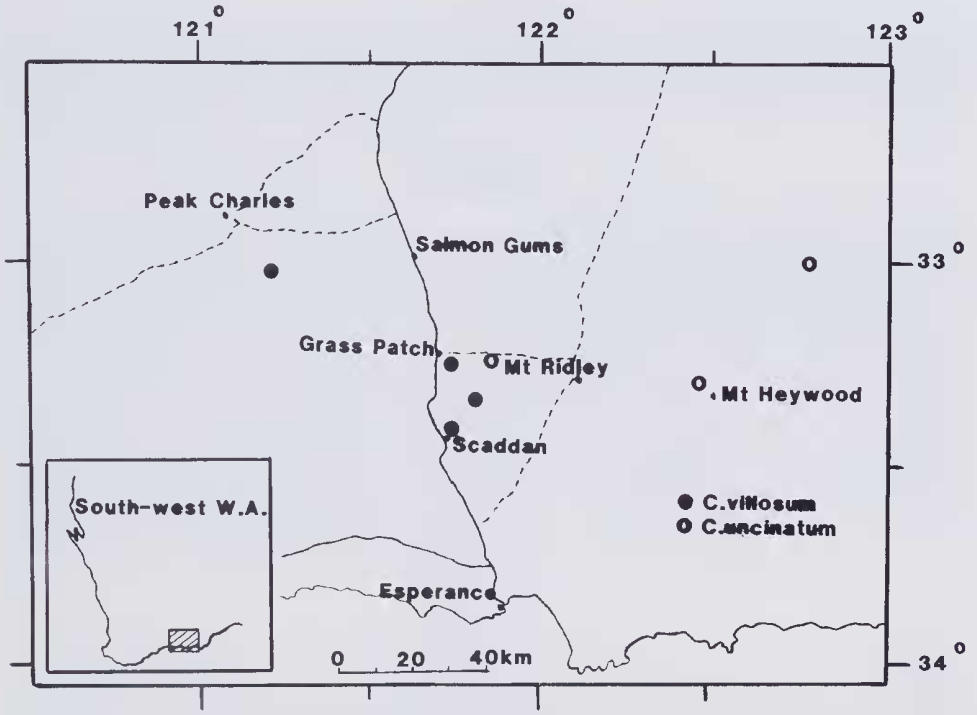

Figure 2. Distribution of *C. marchantiorum* (circles) and *C. uncinatum* sp. nov. (triangles).

Acknowledgements

My thanks go to staff members of the Western Australian Herbarium for their assistance and encouragement, particularly Bruce Maslin for his comments on the manuscript. The Latin diagnosis was provided by Dr N. Brittan. Floral illustrations were prepared by Miss Annette Wilson. P.G. Wilson kindly examined type specimens at MEL. N.S. Lander, whilst Australian Botanical Liaison Officer at Kew, provided photographic types. This research was funded by the Western Australian Mining and Petroleum Research Institute, Western Collieries Ltd and Alcoa of Australia Ltd.

References

Bentham, G. (1867). "Flora Australiensis". Vol. 4. (Lovell Reeve & Co.: London.)
Blackall, W.E. & Grieve, B.J. (1981). "How to Know Western Australian Wildflowers". Part IIIB. 2nd edn. by B.J. Grieve. (University of Western Australia Press: Nedlands.)
Leigh, J., Briggs, J. & Hartley, W. (1981). "Rare or Threatened Australian Plants." (Austral. Natl. Parks & Wildl. Serv. Special Publication 7: Canberra).
Strid, A. (1986). New species of *Leucopogon* and *Conostephium* (Epacridaceae) from SW Australia. Willdenowia 16, 169-180.